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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,245

03/24/2004

Shin-Ichirou Ono

8038-1053

4512

466

7590

10/04/2005

YOUNG & THOMPSON  
745 SOUTH 23RD STREET  
2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER

PARKER, KENNETH

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H:A

<b>Office Action Summary</b>	<b>Application No.</b> 10/807,245	<b>Applicant(s)</b> ONO ET AL.	
	<b>Examiner</b> Kenneth A. Parker	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/24/01</u> | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-3, 11-12, 15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Neary et al 5274533**

In the cover figure Kodaira discloses a light comprising: an optical diffusion plate 7 (shown in prior art figure 1, but one of ordinary skill would recognize that the cover figure is an improved version of the reflector of figure 1, so that the rest of the parts of figure 1 would have been recognized as being part of figure 2  
at least one lamp 22 disposed at a rear side of where an optical diffusion plate, and an optical member 100 for reflecting a light component of light emitted by said lamp substantially parallel to said optical diffusion plate, toward said optical diffusion plate (horizontal light as well as parallel light are reflected up towards the diffusion plate standard location.

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In respect to claim 2 the reference shows wherein said at least one lamp includes a plurality of elongate lamps extending parallel to one another (the system is clearly shown as configured for two, having bulbs on both sides, as is shown in the prior art figure 1 over which the reference improvesre are two 13's, and said optical member is an optical rod member (it is long and skinny) extending parallel to said elongate lamps and interposed between adjacent two of said elongate lamps.

In respect to claim 3, the said optical rod member not shown as made of a conductive material- aluminum is listed.

In respect to claim 12 the reference discloses an optical diffusion plate 7 as discussed above,

at least one elongate lamp 22 disposed at a rear side of said optical diffusion plate; and an rod member 100 as discussed above extending parallel to said elongate elongate lamp and made of a conductive material.

With respect to claims 11 and 15, the reference meets the pair of said optical dispersion sheets sandwich there between said elongate lamp and said rod member. The reflector is anodized aluminum, which is diffuse reflecting, and therefore is a diffusion sheet. So the top diffusion plate 7 and the back reflector sandwich the bulbs, meeting the claim limitations.

With respect to claim 17, the reference meets a liquid crystal display device comprising the backlight unit, as the limitation is a preamble limitation only given weight as intended use and therefore not viewed as distinguishing over the reference, as the light should be usable for that purpose.

**Claims 1-2 ,5-6, 8-10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al 2002184231.**

Kanda discloses regarding claim 1. A backlight unit comprising:

an optical diffusion plate (8);

at least one lamp 2c disposed at a rear side of said optical diffusion plate;

and an optical member 8 or 6 for reflecting a light component of light emitted by said lamp substantially parallel to said optical diffusion plate, toward said optical diffusion plate.

The reference meets in respect to claim 2 wherein said at least one lamp includes a plurality of elongate lamps extending parallel to one another (2a,2b,2c,etc), and said optical member is an optical rod member extending parallel to said elongate lamps and interposed between adjacent two of said elongate lamps (as shown via a perpendicular section-an "optical rod is taken as anything long an skinny, which 6 and 8 would be interpreted as by those of ordinary skill based upon the perpendicular sections shown).

The reference meets in respect to claim 5 wherein said optical rod member has a scatter-reflection surface for scatter-reflecting the light (the back of 6 in figures 20-22).

The reference meets in respect to claim 6 wherein said optical rod member has a mirror surface for reflecting the light, as every figure which has a side without the diffusing material 10 shows mirror surfaces (such as figure 23)

The reference meets in respect to claim 8 wherein said optical rod member is disposed at a substantially intermediate position between said adjacent two of said elongate lamps (as shown).

The reference meets in respect to claim 9 wherein two of said optical rod member are disposed in respective vicinities of said adjacent two of said elongate lamps (multiple are shown).

The reference meets in respect to claim 10 wherein said optical rod member includes a prism member (the shapes of element 6 are truncated prisms).

The reference meets in respect to claim 16 a liquid crystal display device comprising the backlight unit according to claim 1, as the liquid crystal device is in the preamble,

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and therefore only given weight as intended use. As this light if for flat panel displays (element FP), this is clearly met.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 13 and 14 are rejected under 35 U.S.C. 103 as being obvious over Neary et al 5274533 in view of Weathers 6210019.**

Lacking regarding claim 13 is the rod member being electrically grounded. It was well known at the time that the metallic portions of lamps such as that of Neary should be grounded for safety. This is evidenced by Weathers figure 4, which shows a metallic housing 30 being grounded (wire 160).

Lacking regarding claim 14 is the backlight unit wherein said rod member is electrically connected to one of terminals. One of the terminals of lamps were conventionally grounded also for safety. This is also evidenced by Weathers which shows indicated that the lamp terminal is connected to wire 160 (via the lamp ballast) which is grounded.

Therefore one of ordinary skill would have found reason, motivation or suggestion to modify the primary reference Neary for the reasons mentioned above.

**Claim 7 is rejected under 35 U.S.C. 103 as being obvious over Kanda et al 2002184231 in view of Broer et al 5729311.**

Lacking from the disclosure regarding claim 7 is the scattering centers. Scattering centers in a waveguide such as that of Kanda were notoriously well known functionally equivalent alternatives to the scattering rear surfaces of the Kanda



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embodiments containing such. This is evidenced by Broer, which teaches in column 8, lines 5-25 "The diffusion centers may be provided as separate areas or as a separate layer of diffusing particles in the optical waveguide". Therefore one of ordinary skill would have found reason, motivation and suggestion to modify the device of Kanda to add diffusing particles to the waveguide instead of on the back as it was well known that diffusing particle were suitable for the intended purpose.

**Claim 4 is rejected under 35 U.S.C. 103 as being obvious over Kanda et al 2002184231 in view of Lee 2002004437.**

Lacking form the disclosure is the use of projections up to the diffusing sheet. Lee teaches the use of pointy projections between the bulbs for the benefit of preventing the diffusing plate from dropping down (abstract). Therefore on of ordinary skill would have found reason, motivation and suggestion to modify the device of Kanda et al by adding the points of Lee on the rod members to support the diffusing plate from dropping down between the bulbs.

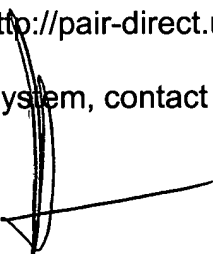
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A. Parker whose telephone number is 571-272-2298. The examiner can normally be reached on M-F 10:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth A Parker  
Primary Examiner  
Art Unit 2871